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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,301	05/08/2001	Robert W. Killick	038441/0104	2790

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FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

PRYOR, ALTON NATHANIEL

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/831,301	<b>Applicant(s)</b> KILLICK ET AL.	
	<b>Examiner</b> Alton N. Pryor	<b>Art Unit</b> 1616	

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 34-38, 41 and 46 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-38 and 42-45 is/are allowed.
- 6) ☒ Claim(s) 34, 41 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

- I. Rejection of claims 34 and 41 under 35 USC 103(a) as being obvious over Hayashi and Hirabayashi will be maintained in light of amendment filed 10/17/05 for reason on record and reason as follows.**
- II. Rejection of claims 34 under 35 USC 103(a) as being obvious over Hirabayashi and Manabe will be maintained in light of amendment filed 10/17/05 for reason on record and reason as follows.**
  - A. Applicant argues:**
    - 1) There is no question that neither combination of references teaches or suggests the ingredients in specific claimed amounts.
    - 2) In view of Examiner interview summary dated 9/26/05, Applicant provided unexpected results to traverse rejections on record. In Declaration is provided unexpectedly stable homogeneous compositions comprising instant amounts of each claimed ingredient. The stable compositions disclosed in the Declaration are as follows:
      - a) 20% mineral oil, 15% ammonium sulfate, and 5% dimethyllaurylamine oxide.
      - b) 20% ethyl oleate, 15% ammonium sulfate, and 5% dimethyllaurylamine oxide.and

- c) 15% mineral oil, 5% ammonium sulfate, and 1.5% dimethylaurylamine oxide.

Applicant also provides data in the Declaration showing the instability of compositions having concentrations of claimed ingredients falling outside of the claimed ranges. Applicant also explains that instant homogeneous composition is advantageous to farmers since no preparation before application is required.

B. Examiner argues:

- 1) The combination of references may not anticipate the instant combination of ingredients in the instant amounts. However, the combination of references suggests the instant homogeneous compositions. Note that in I above, the amount of ethoxylated fatty amine, mineral oil and ammonium chloride fall within the claimed ranges for the instant compositions. See office action dated 6/16/05. Also note that Hayashi also teaches that 1-95% vegetable oils such as fatty acid esters can be used in his composition. See Hayashi page 3 line 58 – page 4 line 6, page 6 lines 25-33. Note that in II above, the combination of ingredients including ammonium chloride, mineral oil, and alkyltrimethylammonium chloride is suggested. The amount of each ingredient to include in the combination is determined through routine experimentation. In the

absence of unexpected results, II makes the instant invention obvious. See office action dated 6/16/05.

2. The results submitted by the Applicant in the Declaration are unexpected and makes certain aspects of the invention non-obvious. However, the claims are not commensurate in scope with the unexpected results provided in the Declaration. Examiner agrees that compositions comprising a) mineral oil or ethyl oleate plus ammonium sulfate plus fatty amine oxides and b) mineral oil or ethyl oleate plus ammonium sulfate plus alkyltrimethyl ammonium chloride are allowable. In addition, Examiner understands how homogeneous compositions ready to use would circumvent mixing problems that could occur if farmers had to mix components before use.

### **III. New Ground of Rejection**

#### ***Claim Rejections - 35 USC § 103***

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mueninghoff (US 6387960; 5/14/02) in view of Oshio et al (US 4,244,731; 1/13/81). Mueninghoff teaches an adjuvant composition comprising a monoglyceride (fatty or lipophilic component) and a component selected from a group including a cationic surfactant. See abstract. Mueninghoff teaches the addition of pesticides, herbicides, and plant growth regulators to the composition. See column 1 lines 15-47. Mueninghoff teaches that the composition can exist in aqueous form (water – lipophobic component).

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See column 1 lines 15-21, column 5 lines 47-55. Mueninghoff teaches a method of applying the composition to crops to promote growth. See column 1 lines 21-30, claims 1 and 4. Mueninghoff does not teach the method comprising a plant nutrient such as ammonium sulfate, ammonium chloride, or ammonium phosphate (lipophobic components). However, Oshio teaches a method of controlling crop growth comprising the application of a composition comprising 2,6-dimethylphenoxy compounds to the crop. See abstract, column 1 lines 5-55. Oshio teaches that the fertilizers such ammonium sulfate, ammonium phosphate, and ammonium chloride can be admixed with the 2,6-dimethylphenoxy compounds. See column 6 line 51 – column 7 line 3. It would have been obvious to one having ordinary skill in the art to modify the invention taught by Mueninghoff to include the ammonium salts taught by Oshio. One would have been motivated to do this in order to further enhance plant growth by incorporation of fertilizers. With respect to the instant amounts of ingredients, one having ordinary skill in the art would have been motivated to determine the optimum amount of ingredients. One would have been motivated to do this in order to develop an invention to effectively promote plant growth.

***Allowable Subject Matter***

Claims 35-38,42-45 are allowable. The prior art does not teach or suggest an invention comprising the instant amounts of named ammonium salts and cationic emulsifiers as specified in claims 35,42; and the instant amounts of named ammonium salts, cationic emulsifiers, and other components as specified in claims 36-38,43-45.

***Telephonic Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alton Pryor  
Primary Examiner  
AU 1616